Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:
Massachusetts and Rhode Island 2016 BENTHIC (Benthic Polygons)

1.2. Summary description of the data:
This data set contains sensitive biological resource data for benthic species in Massachusetts and Rhode Island. Vector polygons in this data set represent a few different species of submerged aquatic vegetation (SAV) and macroalgae. Species-specific abundance, seasonality, status, life history, and source information are stored in associated data tables (described below) designed to be used in conjunction with this spatial data layer. This data set is a portion of the ESI data for Massachusetts and Rhode Island. As a whole, the ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil, and include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the BENTHICPT (Benthic Points) data layer for additional benthic information.

1.3. Is this a one-time data collection, or an ongoing series of measurements?
One-time data collection

1.4. Actual or planned temporal coverage of the data:
2014 to 2016

1.5. Actual or planned geographic coverage of the data:
W: -71.8944, E: -69.6609, N: 42.8876, S: 40.9459

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Map (digital)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
ESI Program Manager

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
orr.esi@noaa.gov

2.5. Phone number:

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:
ESI Program Manager

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality
NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible
(describe or provide URL of description):

Process Steps:

- 2016-01-01 00:00:00 - Developing ESI data for Submerged Aquatic Vegetation (SAV). The most common SAV species in Massachusetts and Rhode Island is eelgrass (Zostera marina), but widgeon grass (Ruppia maritima) can be found as well in areas of less salinity. All SAV were assigned the mapping qualifier of “High Ecological Value”. Polygons depicting SAV in Rhode Island are primarily based on the 2012 dataset developed by the Rhode Island Eelgrass Mapping Task Force that utilized aerial survey and ground truthing as production methods. These areas of SAV were mapped with a concentration value of “Present”. Two SAV datasets produced by the URI Environmental Data Center in 2006 and 2009 were also used where they did not overlap the 2012 data, and these polygons were mapped with a concentration value of “Potential” based on local resource expert input. Jim Turenne, USDA-NRCS, provided input for additional widgeon grass coverage in coastal ponds in Little Compton and Sachem Pond on Block Island. Polygons depicting SAV in Massachusetts are based on datasets developed by the MassDEP Wetlands Conservancy Program Eelgrass Mapping Project in 2010, 2012, and 2013, all three layers of which together cover the entire Massachusetts coastline. MassDEP has been surveying since 1995 and relies on remote sensing of aerial imagery supplemented by underwater video data to acquire SAV extents. Additional eelgrass coverage was provided by Kathryn Ford, MDMF, for the Town of Sandwich, and by Todd Callaghan, Mass CZM for Boston Harbor and Salem Sound. All of these areas of SAV were mapped with a concentration value of either “Present”, “Patchy”, or “ Dense”. Mass CZM produced a dataset for the 2015 Massachusetts Ocean Management Plan that augmented the MassDEP data by adding eelgrass patches from state and federal divers, and also historic and buffer data to include areas that might not have eelgrass currently but should be protected. Where these latter data did not overlap existing eelgrass polygons, they were mapped with a concentration of “Potential”. Two rare freshwater plants species, cutleaf watermilfoil (Myriophyllum pinnatum)(state threatened) and hornleaf riverweed (Podostemum ceratophyllum)(state species of concern) were also mapped as SAV in Rhode Island with a mapping qualifier of “Vulnerable Occurrence” and a concentration of “ Present” using the 2016 RI DEM Natural Heritage Areas data. MADFW NHESP provided a single dataset for ten coastal and estuarine plant species that depend on the dynamic interface of land and water that changes on the coast with regularity. The areas of these data located in water were mapped as “Rare aquatic/wetland plant” (SAV) with the mapping qualifier “High Ecological Value” and a concentration of “Present”. (Citation: MASSDEP 2013 EELGRASS MAPPING)
- 2016-01-01 00:00:00 - Developing ESI data for Macroalgae. Macroalgae mapped for Rhode Island includes both red (Rhodophyta) and green (Chlorophyta). Both species have a year-round presence, but green algae have a strong seasonal component and are only present in large abundances in the summer and fall (Green and Deacutis, personal communication). Distribution polygons in Narragansett Bay based on data from summer and fall aerial surveys conducted by RI DFW between 2007 and 2012, and along coastal ponds and rocky shores by

expert input from Lindsay Green and Carol Thornber, URI. Only high density accumulations were mapped with a concentration value of either 41-70% or 71-100% of total cover. Macroalgae depicted in Massachusetts consist of aquatic vegetation beds mapped as points using three data layers developed by Mass CZM for the 2015 Massachusetts Ocean Management Plan: Attached Mussel Beds, Canopy-forming Algal Beds (Kelps), and Soft Corals. These datasets indicate locations where benthic biota was observed in analyzed seafloor photographs from 2013, and the biological information was classified according to a modified version of the Coastal and Marine Ecological Classification Standard (CMECS), Version 4.0, Benthic Biotic Component (Federal Geographic Data Committee, January 2012). The biotic subclass of macroalgae were extracted from these data and mapped with a concentration value of "Medium" based on density of cover. All digital data received from MA and RI for the Benthic Layer were edited as necessary to match NOAA ESI Shoreline layer included in this atlas. (Citation: NARRAGANSETT BAY MACROALGAE FALL AND SUMMER HIGH DENSITY 2007-12)

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:
- 1.7. Data collection method(s)
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility

- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://www.fisheries.noaa.gov/inport/item/51675

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access
NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:
Office of Response and Restoration (ORR)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:
https://response.restoration.noaa.gov/esi_download

7.3. Data access methods or services offered:
Data can be accessed by downloading the zipped ArcGIS geodatabase from the Download URL (see Distribution Information). Questions can be directed to the ESI

Program Manager (Point Of Contact).

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Office of Response and Restoration - Seattle, WA

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.